U.S. ARMY CHEMICAL MATERIALS AGENCY www.cma.army.mil

CMA NEWS | December 2009

CMA PROGRESS AT A GLANCE

as of November 18, 2009:

— Anniston Chemical Activity, Ala.: Anniston Chemical Agent Disposal Facility (ANCDF) and Anniston Chemical Activity will celebrate, on Dec. 24, the one-year anniversary of their last nerve agent munition destroyed. Between August 2003 and December 2008, the Anniston Team safely demilitarized all 361,802 of the nerve agent (GB and VX) munitions and 293,003 gallons of liquid nerve agent. Disposal operations resumed in July of this year, with more than 57,000 mustard-filled munitions and more than 27,000 gallons of agent safely processed. Approximately one-third of the Anniston stockpile remains in the storage igloos.

— Deseret Chemical Depot, Utah: Tooele Chemical Agent Disposal Facility workers continue to use the Drum Ventilation System (DVS) to monitor and sort secondary wastes. More than 800 drums have been processed through the DVS and 97 percent have monitored below the 1.0 vapor screening limit, allowing the drums to be shipped off site to a permitted hazardous waste landfill.

— Newport Chemical Depot, Ind.: Newport Chemical Agent Disposal Facility workers continue closure operations. Above-ground structural demolition of the Process Auxiliary Building and Utility Building (UB) is complete. Future efforts will focus on completing demolition of the Filter Farm Area, as well as removal of the UB concrete foundation. All 1X waste material has been transported off site for final treatment and air monitoring has been discontinued.

— Pine Bluff Chemical Activity, Ark.: Pine Bluff Chemical Agent Disposal Facility (PBCDF) continued safe and compliant processing of mustard disposal this month. On Nov. 7, PBCDF surpassed 50 percent destruction of the chemical agent in its stockpile. This equates to approximately 3.9 million pounds of GB, VX and mustard agent that has been destroyed since beginning disposal operations in March 2005. Demolition of the former BZ disposal building continues. On Nov. 13, PBCDF URS Washington Demilitarization Company employees achieved one year without a recordable injury at the facility. This accomplishment was a first for any chemical demilitarization site. In July 2009, PBCDF was also the first site to achieve one million hours consecutively worked without a recordable injury.

— Umatilla Chemical Depot, Ore.: Umatilla Chemical Agent Disposal Facility's (UMCDF) mustard campaign was on hold during November to address new regulatory requirements to avoid "boilovers" of the contents of ton containers while in the Metal Parts Furnace (MPF). Another issue involving ton containers emitting smoke as they left the MPF has been successfully resolved with the installation of an MPF discharge airlock quench system to cool the containers. In the interim, UMCDF continues to conduct maintenance, monitoring, environmental and decommissioning activities.

Transition Office Opens at Pine Bluff Arsenal

The grand opening of the Transition Office at Pine Bluff Arsenal was Monday, Nov. 16. The office spans several rooms that are adjacent to and behind Pass & ID in the Creasy Complex, which is adjacent to the Plainview Gate. The Transition Office provides career management assistance to both government and contractor personnel affected by the upcoming closure of chemical weapons disposal operations. The office is staffed with federal and state counselors, in partnership with the Arkansas Workforce Center.

Federal counselors will provide assistance in the areas of retirement benefits, reduction in force, voluntary early retirement authority, voluntary separation incentive payment and retention incentives.

State counselors will offer assistance in the areas of:

1. *Job search through self-service labor market information and job seeking databases;*
2. *Job-seeking skills, such as resume writing and interview preparation; and*
3. *Statewide referral system linking jobseekers to other agencies that can provide support, which may lead to employment.*

The Transition Office will initially be open Monday through Friday, noon to 5:00 p.m. (*federal staff*) and 8:00- 4:30 p.m. (*state staff*). These hours will be extended, or adjusted, to accommodate personnel who work shifts. An appointment is necessary to secure assistance.

DCD *Commander Wears Two Hats*

Col. Gerald L. Gladney is serving double duty as commander of the Deseret Chemical Depot (DCD) in Utah and Acting Director of Stockpile Operations (DOSO).

As the DOSO, Col. Gladney oversees the storage of chemical agent-filled munitions at all of the U.S. Army stockpiles and manages agent accountability. Col. Gladney is familiar with this position since it was his job before going to DCD.

The recent appointment by the director of the U.S. Army Chemical Materials Agency (CMA), Conrad Whyne, requires Col. Gladney to travel to CMA headquarters in Edgewood, Md., more often. But he feels support in both locations makes it all possible.

"I am very fortunate to have good teams at both ends [DCD and CMA headquarters] to be able to run both," Col. Gladney said and he added, "I am grateful that Mr. Whyne has the faith and confidence in me to be able to pull this off."

Congratulations CSE!

The Chemical Stockpile Elimination (CSE) mission destroyed 3,084.49 U.S. tons of chemical agent during this fiscal year. This is the U.S. Army Chemical Materials Agency's largest amount of chemical agent destroyed in one year. Four of the chemical demilitarization sites—*Anniston Chemical Agent Disposal Facility, Pine Bluff Chemical Agent Disposal Facility, Tooele Chemical Agent Disposal Facility and Umatilla Chemical Agent Disposal Facility*—contributed toward this achievement.

STAY SAFE

The holidays are a time for families and friends to come together and celebrate traditions. If one of your traditions is a fresh tree, remember to keep it away from fireplaces or other heat sources, and water it frequently. Also remember to inspect your lights before use, looking for cracked bulbs or exposed wires, and never leave candles unattended or within reach of young children.

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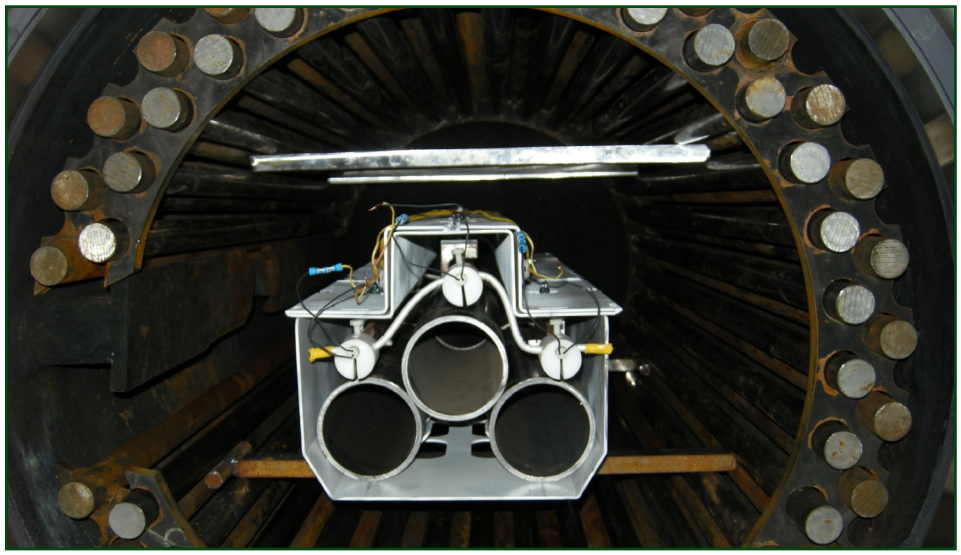
FASTER, MORE EFFICIENT, LESS WASTE

Advanced Fragment Suppression Shield for EDS fielded at Pine Bluff Arsenal

The goal was faster, more efficient destruction of recovered chemical weapons that created less solid waste. The answer is the Advanced Fragment Suppression Shield (AFSS).

The U.S. Army Chemical Materials Agency's Non-Stockpile Chemical Materiel Project (NSCMP) Research and Development team developed the AFSS for the Explosive Destruction System (EDS), a transportable system that has been used for eight years to safely destroy recovered chemical warfare materiel. After years of research and testing, NSCMP fielded this EDS upgrade, significantly reducing cost and solid waste of each mission.

"The EDS has been extremely successful in treating recovered munitions, but we wanted to find a way to reduce the amount of solid waste associated with each individual treatment," said Research and Development team leader, Allan Caplan. "The creation of the AFSS not only achieves that goal, but greatly reduces the burden on our operators and will result in significant cost savings for the Army over time."



As part of its ongoing research and development program, the U.S. Army Non-Stockpile Chemical Materiel Project developed the Advanced Fragment Suppression Shield (AFSS), which protects the Explosive Destruction System from damage during operations. In contrast to the original fragment suppression shield, the AFSS can be used numerous times - greatly minimizing solid waste

The EDS uses cutting charges to explosively access chemical munitions, eliminating their explosive capacity before the chemical agent is neutralized. The system's main component, a sealed stainless steel vessel, contains all of the blast, vapor and fragments from the process.

During operations, munitions traditionally were placed in a Fragment Suppression System (FSS), which protects the EDS vessel during destruction, enabling it to destroy thousands of munitions. The original one-time use FSS was made of thick steel, creating up to 500 pounds of metal waste per operation, and posing a challenge for crew members, who had to insert the cumbersome FSS into the EDS vessel.

The AFSS consists of a "lining" of 86 one-inch steel bars weighing 17 pounds each, held in a cradle within the EDS. They protect the vessel during destruction and can be used numerous times, with damaged rods being individually replaced. This significantly reduces the solid waste and cost of each mission.

"We are very pleased with the positive results of the AFSS," says Laurence Gottschalk, Project Manager for Non-Stockpile Chemical Materiel. "However, this is just one way we are working to enhance our operations. We are continuing to develop new methods and equipment to increase our processing rates while decreasing our waste stream."

The AFSS, extensively tested at Sandia National Laboratories in Albuquerque, N.M., and at Aberdeen Proving Ground, Md., was fielded for the first time at Pine Bluff Arsenal, Ark., in a mission to destroy remaining munitions there through spring 2010.

TOCDF's New Filtration System Moving Ahead

The Tooele Chemical Agent Disposal Facility's (TOCDF) new $33 million Pollution Abatement System (PAS) Filtration System (PFS) is running smoothly through required tests and demonstrations. There are three separate PFS carbon filter units—one for the metal parts furnace (MPF) and one for each liquid incinerator (LIC). Each PFS is designed to capture mercury from contaminated exhaust gases, allowing TOCDF to safely destroy those mustard munitions with high levels of mercury.

On Oct. 14, the PFS started its shakedown period, allowing operators to become more familiar with the system and determine optimum operating parameters and conditions while processing actual munitions contaminated with mercury.

As part of the shakedown, the PFS is undergoing a series of planned performance tests, including the Alternative Monitoring Request-Relative Accuracy Test Audit (AMR-RATA), which demonstrates TOCDF's capability and accuracy in monitoring exhaust gas for mercury. Each furnace and its associated carbon filtration unit—the MPF and both LICs—have successfully completed the AMR-RATA.

The shakedown period also includes what is referred to as a "mini-burn." This is the same kind of demonstration test that is done for state regulators, only shorter. The MPF mini-burn went well; the MPF demonstration tests were performed in November. The LIC mini-burn has also been completed; the official LIC demonstration test will take place in early December. State officials have agreed that performance data from a single LIC/PFS demo test will be applied to the other LIC/PFS system.

Once the demonstration tests are completed, the HT 4.2-inch mortar campaign is expected to start again in January.

Construction of the TOCDF Pollution Abatement System Filtration System is complete and a series of planned performance tests are now underway. Each of the three massive filter units measure nearly 60 feet long and weigh more than 35 tons. They contain a pre-filter, a High Efficiency Particulate Air (HEPA) filter, four carbon filters and a final HEPA filter.

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